

Listing of the Claims:

The following is a complete listing of all the claims in the application, with an indication of the status of each:

- 1 1. (Previously presented) A wavelength division multiplexing transmission
2 system in which a plurality of remote apparatuses are connected to a
3 station apparatus which communicates with said remote apparatuses
4 using a given plurality of wavelengths, wherein each of said remote
5 apparatuses comprises:
6 wavelength separating means for separating an optical signal
7 including a plurality of wavelengths into separated optical signals;
8 optical receiving means for receiving said separated optical signals
9 from said wavelength separating means and for outputting reception
10 status signal indicating whether or not each of the given plurality of
11 wavelengths used in the transmission system is being received;
12 wavelength control means for determining an available wavelength
13 as a transmission and reception signal on the basis of said reception status
14 signal;
15 optical transmitting means for transmitting an optical signal of said
16 available wavelength determined by said wavelength control means.
- 1 2. (Previously presented) The wavelength division multiplexing
2 transmission system according to claim 1, wherein said wavelength control
3 means sets said available wavelength as a transmission and reception
4 signal and outputs a wavelength control signal for setting said available
5 wavelength.
- 1 3. (Previously presented) The wavelength division multiplexing
2 transmission system according to claim 1, wherein said wavelength control

3 means determines the wavelength of an unreceived optical signal among
4 the wavelengths used in the transmission system as said the available
5 wavelength and sets said available wavelength as a transmission and
6 reception wavelength to be used in said remote apparatus.

1 4. (Previously presented) The wavelength division multiplexing
2 transmission system according to claim 1, wherein said wavelength control
3 means determines the wavelength of a received signal as said available
4 wavelength and sets said available wavelength as a transmission and
5 reception signal to be used in said remote apparatus.

1 5. (Previously presented) The wavelength division multiplexing
2 transmission system according to claim 1, wherein said station apparatus
3 comprises optical control means for determining a wavelength to be used,
4 on the basis of an optical signal received from said remote apparatus.

1 6. (Previously presented) The wavelength division multiplexing
2 transmission system according to claim 1, wherein said station apparatus
3 is arranged to prevent an optical signal having the same wavelength as an
4 unreceived wavelength among wavelengths used in said transmission
5 system from being outputted and outputs an optical signal having the
6 same wavelength as a received wavelength.

1 7. (Previously presented) The wavelength division multiplexing
2 transmission system according to claim 1, wherein said station apparatus
3 comprises:
4 wavelength demultiplexing means for demultiplexing the
5 wavelength of a received optical signal;
6 optical receiving means for receiving an optical signal demultiplexed
7 by said wavelength demultiplexing means;

8 optical output control means for determining, as a transmission
9 wavelength, an optical signal having the same wavelength as that of an
10 optical signal received by said optical receiving means;
11 optical transmitting means for transmitting an optical signal having
12 the transmission wavelength determined by said optical output control
13 means; and
14 wavelength multiplexing means for multiplexing the wavelength of
15 the optical signal transmitted by said optical transmitting means.

1 8. (Original) The wavelength division multiplexing transmission system
2 according to claim 1, wherein each of said remote apparatuses and said
3 station apparatus are connected with each other through optical branching
4 and coupling means.

1 9. (Original) The wavelength division multiplexing transmission system
2 according to claim 8, wherein said optical branching and coupling means is
3 an optical coupler.

1 10. (Original) The wavelength division multiplexing transmission system
2 according to claim 8, wherein said optical branching and coupling means is
3 wavelength demultiplexing and multiplexing means.

1 11. (Original) The wavelength division multiplexing transmission system
2 according to claim 1, wherein said plurality of remote apparatuses and
3 said station apparatus are connected in a star topology.

1 12. (Original) The wavelength division multiplexing transmission system
2 according to claim 1, wherein said plurality of remote apparatuses and
3 said station apparatus are connected in a tree topology.

1 13. (Currently Amended) A remote apparatus in a wavelength division
2 multiplexing transmission system in which a plurality of remote
3 apparatuses are connected to a station apparatus and communication is
4 performed among said remote apparatuses and the station apparatus
5 using a given plurality of wavelengths, said remote apparatus comprising:
6 wavelength separating means for separating an optical signal
7 including a plurality of wavelengths into separated optical signals;
8 optical receiving means for generating and outputting a reception
9 status signal indicating whether or not each of the given plurality of
10 wavelengths used in the transmission system is being received;
11 wavelength control means for determining an available wavelength
12 as a transmission and reception signal on the basis of said reception status
13 ~~an optical signal~~; and
14 optical transmitting means for transmitting an optical signal of said
15 available wavelength determined by said wavelength control means.

1 14. (Previously presented) The remote apparatus according to claim 13,
2 wherein said wavelength control means sets said available wavelength as
3 a transmission and reception signals and generates and outputs a
4 wavelength control signal for setting said available wavelength.

1 15. (Previously presented) The remote apparatus according to claim 13,
2 wherein said wavelength control means determines the wavelength of an
3 unreceived optical signal among the wavelengths used in the transmission
4 system as said available wavelength and sets said available wavelength as
5 a transmission and reception wavelength.

1 16. (Previously presented) The remote apparatus according to claim 13,
2 wherein said wavelength control means determines the
3 wavelength of a received optical signal as said available wavelength

4 and sets said available wavelength as a transmission and reception
5 wavelength.

17 -19. (Canceled).

1 20. (Previously presented) A method for adding a remote apparatus to a
2 wavelength division multiplexing transmission system in which a plurality
3 of remote apparatuses are connected to the station apparatus and
4 communication is performed among said remote apparatuses and the
5 station apparatus using a given plurality of wavelengths, said method
6 comprising:
7 separating an optical signal including a plurality of wavelengths
8 into separated optical signals;
9 generating and outputting a reception status signal indicating
10 whether or not wavelengths used in the transmission system are being
11 received;
12 determining an available wavelength on the basis of said reception
13 status signal; and
14 transmitting an optical signal of said available.

1 21. (Previously presented) The method according claim 20, further
2 comprising:
3 generating and outputting, based on a result of said determining, a
4 wavelength control signal for setting said available wavelength; and
5 setting, based on said wavelength control signal, said available
6 wavelength as a transmission and reception signal.